Crane, Rebecca

From: Price-Fay, Michelle
Sent: Sunday, December 27, 2020 8:52 PM
To: Jeff Parsons
Cc: Martinsen, Jessica; Conway, Bette; R3 NPDES Mining Submittals; Crane, Rebecca
Subject: WV1030175 Republic Energy LLC – Turkeyfoot Surface Mine, New Permit

Categories: Record Saved - Shared

Hello Jeff,

Pursuant to Section 402 of the Clean Water Act, 40 C.F.R. § 123.44, and the Memorandum of Agreement Regarding the Administration and Enforcement of the National Pollutant Discharge Elimination System (NPDES) in West Virginia (1982) (MOA), the U.S. Environmental Protection Agency (EPA) Region III received the draft permit for:

Republic Energy LLC – Turkeyfoot Surface Mine, New Permit
NPDES Permit Number: WV1030175
EPA Received: November 23, 2020
30-day response due date: December 23, 2020

Republic Energy LLC has submitted an application for a new NPDES Permit to authorize point source discharges from a new 1,085.70-acre surface mine, the Turkeyfoot Surface mine. This new mining operation includes 34 proposed outfalls, 4 of which are outfalls associated with valley fills proposed in this NPDES permit. If authorized, the site will discharge stormwater and treated water to an unnamed tributary (UT) of/and to Workman Creek, UT of/and to Stover Fork, UT of Clear Fork all of Clear Fork and UT of/and to Wingrove Branch of Sandlick Creek of Marsh Fork, all of the Big Coal River of Coal River of the Kanawha River Watershed. The rationale indicates there will be 8 phases of operation, with a total mine life expectancy of 8 years. Upon reclamation, approximately 394 acres of pre-law mine highwalls will be eliminated.

EPA's review and comments are based the Draft Permit and Rationale as well as the following available documents:

- Baseline water quality spreadsheets
- NWQS documentation
- ACOE Jurisdictional Determination documentation
- Site maps
- POC workbooks
- Final NPDES permits for noted adjacent/contiguous surface mines WV1028791 Republic Energy LLC – Long Ridge Surface mine (east of this new mine), and WV1028901 Republic Energy LLC – Center Contour Mine (west of this new mine)
- WVDEP's *Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47 C.S.R. 2 §§ 3.2.e and 3.2.i*
- Aquatic Ecosystem Protection Plan (AEPP)
- Biological assessment station (BAS) monitoring plans

EPA offers the following comments and recommendations:

<u>Aquatic Ecosystem Protection Plan</u>

- The AEPP lacks specificity, which raises uncertainty as to the effectiveness of the proposed control measures/monitoring requirements that would provide documentation of the effectiveness of those measures to achieve WET limitations and minimize the potential adverse biological impacts to aquatic ecosystem. West

Virginia's narrative standards permitting guidance lists a variety of control measures that could be utilized within the mine design plan, however, the AEPP is limited in its discussion of what control measures are included in this project. EPA recommends more detail be included in the AEPP which describes the proposed control measures and how they are intended to be effective to meet the narrative standard. For example, the AEPP discusses construction of the valley fills, however, it is unclear if the valley fill lifts will be constructed at 50-foot lifts or 100-foot lifts. In addition, there is no discussion on the locations of the valley fills, will they be constructed on the up-dip or down-dip of the operation.

- A discussion/evaluation of monitoring data of both baseline instream and outfall monitoring of Republic Energy LLC's adjacent/contiguous mining operations could be added to the AEPP. This data evaluation could help inform the development of site specific BMPs for the Turkeyfoot operation, particularly in the remining areas, that might be necessary to ensure protection of and reduce potential adverse impacts to the aquatic ecosystem.
- The streams impacted by Valley Fills 001-003 are Workman Creek and Stover Fork, which drain into Clear Fork, a listed trout stream. Valley fill 004 discharges into Wingrove Branch and Sandlick Creek. All of these streams drain to the Big Coal River of the Coal River of the Kanawha River. Clear Fork and Sandlick Creek have TMDL's for Biological, Iron, and Fecal Coliform impairments. Clear Fork also has a TMDL for aluminum, and sediment was an identified stressor in the Sandlick Creek TMDL. In addition to the WQBELs/monitoring requirements assigned to these outfalls, EPA recommends the AEPP include a discussion of these stressors , and identify the specific BMPs being incorporated and implemented to minimize contribution of these stressors to the aquatic ecosystem.

<u>Whole Effluent Toxicity Limits</u>

- For the proposed WET limits, EPA recommends the draft permit include requirements for specific toxicity test methods and Test Method Acceptability Criteria (TAC) and include specific toxicity testing endpoints for WET (i.e., IC25 or NOEC).
- The WV narrative standards permitting guidance states that "[i]*n developing the WET trigger, the permit writer will consider the in-stream waste concentration of the effluent in the immediate receiving stream and calculate it so as to result in no greater than 1.0 chronic toxicity unit (TUc) and 0.3 acute toxicity unit (TUa) at the edge of the appropriate mixing zones, where applicable*. However, the draft permit proposes WET permit limits of 0.82 TUc average monthly and 1.64 TUc max daily. EPA recommends the Rationale clearly document the decision for these limits and how they are consistent with the guidance.

<u>BWQ Workbook</u>

- EPA recommends that the Rationale include documentation and the basis for the 7Q10's used in the BWQ spreadsheets for water-quality based limit derivation with respect to Valley Fills. Our understanding of the proposed mine is that the valley fills will discharge into headwater streams with low 7Q10 resulting in effluent dominated streams. However, the BWQ analysis appears to allow effluent dilution when deriving WQBELs. If the 7Q10 flow from a monitoring station downstream of an outfall is used, EPA recommends that the Rationale document the effectiveness of this approach to meet the narrative standard for the segment of the stream between that monitoring station and the outfall. In addition, EPA recommends that discussion of the 7Q10s include information which documents their consistency with TMDL wasteload allocations.
- The draft permit rationale states for BWQ 0357-26 (PHC 201), instream monitoring point for Outlets 001 and 003 that …"A holistic approach was used for calculation of WQBEL limits at this BWQ station rather than stacking assimilative capacities from upstream BWQ's" However, EPA notes that the 7Q10 at Outfall 001 is almost 14 times higher than the 7Q10 at Outfall 003, and the 7Q10 at BWQ-0357-26 used in the worksheet is over 18 times higher than the 7Q10 at Outfall 003. EPA cautions that allowing for effluent dilution that is not available in the stream could result in unintended excursions of water quality standards in the approximately 2.1 miles of stream between Outfall 003 and BWQ-0357-26. EPA recommends consideration of calculating limits based on the instream flow at the point of discharge.
- EPA's review of the BWQ worksheet noted a potential error for Outlet 004. The permit references use of BWQ-06**<u>34</u>**-14 in Wingrove Branch, but the worksheet provided uses point BWQ-06**<u>36</u>**-14 in Paint Creek. Please review whether this is in error and if a correction is needed.

Thank you for the opportunity to provide comment. If you have any questions concerning this matter, please contact Bette Conway on my staff at 215-814-5744 or by email at conway.bette@epa.gov.

Sincerely,
Michelle

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